

MATSUDA ET AL. -- 10/602,066  
Attorney Docket 008312-0304355

**IN THE CLAIMS:**

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. *(Cancelled)*.

2. *(Currently Amended)* A semiconductor device, comprising:

(a) a semiconductor substrate;

(b) a pair of first diffusion layers formed within said semiconductor substrate;

(c) a gate insulating film including:

(i) a first insulating film portion formed on that portion of said semiconductor substrate which is positioned between said first diffusion layers, and

(ii) a second insulating film portion positioned on both edges of said first insulating film portion, said second insulating film portion having a thickness that is larger than a thickness of said first insulating film portion;

(d) a gate electrode having a first gate portion formed on the first insulating film portion and a second gate portion formed on the second insulating film portion, in which the first and second gate portions are formed of the same material;

(e) a first gate side wall insulating film formed on a side surface of said gate electrode and on a side surface of said second insulating film portion, the first gate side wall insulating film having a first side surface and a second side surface, the first side surface being opposite to a side surface facing the gate electrode, the second side surface being opposite to a side surface facing the second insulating film portion, the first side surface being flush with the second side surface; and

(f) a second diffusion layer formed apart from said first diffusion layers within that portion of said semiconductor substrate which is positioned below said first insulating film portion.

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3. - 4. (*Cancelled*).

5. (*Original*) The semiconductor device according to claim 2, wherein said first diffusion layers further comprises:

a pair of extension regions formed below said gate side wall insulating film apart from said second diffusion layer; and

a pair of source-drain regions formed in contact with said extension regions on a side opposite said second diffusion layer.

6. (*Currently Amended*) The semiconductor device according to claim 2, ~~wherein said gate side wall insulating film comprises:~~

~~a third side wall portion formed on the side surface of said gate electrode and on the side surface of said second insulating film portion; and~~

~~a fourth side wall portion formed on a side surface of said third side wall portion~~

further comprising a second gate side wall insulating film formed on a side surface of the first gate side wall insulating film.

7. (*Cancelled*).

8. (*Original*) The semiconductor device according to claim 2, further comprising an interlayer insulating film formed to surround said gate side wall insulating film, an upper surface of said interlayer insulating film being substantially equal to an upper surface of said gate electrode.

9. (*Cancelled*).

10. (*Currently Amended*) ~~The semiconductor device according to claim 2,~~ A semiconductor device, comprising:

(a) a semiconductor substrate;

(b) a pair of first diffusion layers formed within said semiconductor substrate;

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(c) a gate insulating film including:

(i) a first insulating film portion formed on that portion of said semiconductor substrate which is positioned between said first diffusion layers, and

(ii) a second insulating film portion positioned on both edges of said first insulating film portion, said second insulating film portion having a thickness that is larger than a thickness of said first insulating film portion;

(d) a gate electrode having a first gate portion formed on the first insulating film portion and a second gate portion formed on the second insulating film portion, in which the first and second gate portions are formed of the same material;

(e) a first gate side wall insulating film formed on a side surface of said gate electrode and on a side surface of said second insulating film portion; and

(f) a second diffusion layer formed apart from said first diffusion layers within that portion of said semiconductor substrate which is positioned below said first insulating film portion;

wherein a conductivity type of said second diffusion layer is opposite the conductivity type of said semiconductor substrate.

11. - 21. (*Cancelled*).

22. (*New*). The semiconductor device according to claim 2, wherein the lower end of the gate electrode is cut out, and a cut out region of the lower end of the gate electrode is embedded with only the second insulating film portion.

23 (*New*). The semiconductor device according to claim 6, wherein the lower end of the gate electrode is cut out, and a cut out region of the lower end of the gate electrode does not include the second gate insulating film.

24 (*New*). The semiconductor device according to claim 2, wherein an upper surface of the second insulating film portion is positioned higher than a top surface of

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the first insulating film portion, and a bottom surface of the second insulating film portion is positioned lower than a bottom surface of the first insulating film portion.